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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,660	09/03/2004	Quanzhong Gao	9896-000051/NP	4776
27572	7590	12/29/2005	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			MARSH, OLIVIA MARIE	
			ART UNIT	PAPER NUMBER
			2686	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/506,660	GAO ET AL.	
	Examiner	Art Unit	
	Olivia Marsh	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/3/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1, 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Sommer et al (WO 00/54531).**

As to **claim 1**, Sommer discloses:

A method of optimizing soft handover between RNCS (Radio Network Controllers) (*page 4, lines 14-20, 27-34*), comprises steps of:

- a. according to the measurement control information provided by a corresponding SRNC of a Node B to which a UE currently belongs, measuring signals of co-frequency neighbor cells by the UE to obtain a measuring result; reporting the measuring result to said SRNC by the UE; (*page 11, lines 31-37*)
- b. making a handover decision according to said measuring result by said SRNC, and determining whether to make a soft handover; if not, then continuing to make

handover decision; if yes, then determining whether said SRNC has right to dispatch common resources of a target Node B to which said the current UE is to handover; *(page 5, lines 26-38; page 8, lines 26-30; page 12, lines 24-28)*

c. if yes, applying for required common resources to a specific functional entity that controls said common resources of said target Node B by said SRNC, and then going to step d; if not, then initiating a soft handover between RNCS, and ending *(page 11, lines 10-17)*

d. according to status of current use of common resources of said target Node B, responding whether said common resources are available by said specific functional entity, if yes, then establishing a connection between said SRNC and said target Node B by said SRNC, and initiating a soft handover within RNC, otherwise, initiating a soft handover between RNCS. *(page 11, lines 24-29; page 14, lines 1-6; Figure 7)*

As to **claim 5**, Sommer discloses everything as applied in claim 1 and Sommer also discloses the specific functional entity is a logical functional entity within said target Node B *(see page 14, lines 1-6)*.

As to **claim 6**, Sommer discloses everything as applied in claim 1 and Sommer also discloses the specific functional entity is a logical functional entity in a network server *(see page 14, lines 1-6)*.

As to **claim 7**, Sommer discloses everything as applied in claim 1 and Sommer also discloses status of current use of common resources of said target Node B in step d is obtained according to whether there are idle common resources in target Node B *(see page 10, lines 39-34)*.

As to **claim 8**, Sommer discloses everything as applied in claim 1 and Sommer also discloses initiating a soft handover between RNCS further comprises: setting the currently

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corresponding RNC of said target Node B as a DRNC, establishing a link between said SRNC and said DRNC, and making a soft handover between said SRNC and said DRNC (*see page 14, lines 1-6*).

As to **claim 9**, Sommer discloses everything as applied in claim 1 and Sommer also discloses retrieving the corresponding common resources by said target Node B, when a soft handover has been completed, and said connection between SRNC and target Node B needs to be disconnected (*see page 8, lines 26-30*).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sommer as applied to claim 1 above, and further in view of well known prior art (MPEP 2144.03).**

As to **claim 2**, Sommer teaches everything as applied in claim 1; however, Sommer does not specifically teach the measuring result in step b is a signal strength measuring result. The Examiner contends this feature was old and well known in the art at the time of invention as taught by well known prior art.

The Examiner takes Official Notice that it was old and well known to one of ordinary skill in the art at the time of invention to determine an interference probability based on the signal strength of the channel being tested.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to require the method, disclosed by Sommer, the measuring result in step b is a signal strength measuring result, as taught by well known prior art, to determine interference based on the proximity of the mobile device to its neighbor cells.

As to **claim 3**, Sommer teaches everything as applied in claim 1; however, Sommer does not specifically teach the measuring result in step b is a bit error rate measuring result. The Examiner contends this feature was old and well known in the art at the time of invention as taught by well known prior art.

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The Examiner takes Official Notice that it was old and well known to one of ordinary skill in the art at the time of invention to determine an interference probability based on bit error rate of the channel being tested.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to require the method, disclosed by Sommer, the measuring result in step b is a bit error rate measuring result, as taught by well known prior art, to determine interference based on how well the mobile user is receiving data from the neighboring channels.

As to **claim 4**, Sommer teaches everything as applied in claim 1; however, Sommer does not specifically teach the measuring result in step b is a signal-interference ratio measuring result. The Examiner contends this feature was old and well known in the art at the time of invention as taught by well known prior art.

The Examiner takes Official Notice that it was old and well known to one of ordinary skill in the art at the time of invention to determine an interference probability based on signal-interference ratio of the neighboring channels.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to require the method, disclosed by Sommer, the measuring result in step b is a signal-interference ratio measuring result, as taught by well known prior art, to enable the SRNC to determine which neighboring channel would be best suited for the mobile device based on interference levels.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 2002/0151304 A1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olivia Marsh whose telephone number is 571-272-7912. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marsha D Banks-Harold
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